TEAC

SERVICE MANUAL

AG-L800

AV Digital Home Theater Receiver

DOLBY DIGITAL PRO LOGIC II

DIGITAL dts SURROUND

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NOTES

- PC boards shown are viewed from parts side.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sign are safety critical components. They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.
- Parts of [ ] mark can be used only with the version designated.
  [US]:U.S.A. [C]:CANADA [E]:EUROPE [UK]:U.K.

Effective : February, 2003

S-0086A

1 SPECIFICATIONS

Amplifier Section

Output Power (Stereo) ..... 80 + 80 watts RMS
(0.9 % THD, 20 Hz to 20 kHz, 6 ohms)
Surround Output Power
Front ..... 50 + 50 watts (0.5 % THD, 1 kHz, 6 ohms)
Center ..... 50 watts (0.5 % THD, 1 kHz, 6 ohms)
Rear..... 50 + 50 watts (0.5 % THD, 1 kHz, 6 ohms)
Total Harmonic Distortion (Stereo) ..... 0.2 % (at 80 watts, 1 kHz)
Delay Time
DOLBY DIGITAL ..... REAR 0 – 15 ms
CENTER 0 – 5 ms
DOLBY PRO LOGIC II MUSIC ..... REAR 0 – 15 ms
DOLBY PRO LOGIC II MOVIE ..... REAR 10 – 25 ms
Audio Input Sensitivity / Impedance
LINE (VCR, SAT, AUX) ..... 380 mV / 47 k ohms
Output Level / Impedance
HDR/VCR, MD/CD-R, PRE OUT..... 350 mV / 2.2 k ohms
Frequency Response
LINE (VCR, SAT, AUX) ..... 20 Hz – 20 kHz, +1 / –3 dB
Signal-to-Noise Ratio
LINE (VCR, SAT, AUX) ..... 70 dB (IHF-A)
Tone Control
BASS ..... ± 10 dB at 100 Hz
TREBLE..... ± 10 dB at 10 kHz

Digital Audio Section

Sampling Frequency ..... 32 kHz, 44.1 kHz, 48 kHz, 96 kHz
DIGITAL Input Level / Impedance
COAXIAL ..... 0.5 Vp-p / 75 ohms
OPTICAL ..... –15 dBm to –21 dBm

Video Section

Input Sensitivity / Impedance ..... 1.0 Vp-p / 75 ohms
Output Level / Impedance..... 1.0 Vp-p / 75 ohms

FM Tuner Section

(Without notes 100.1 MHz, 65 dBf)
Tuning Range ..... 87.5 MHz – 108.0 MHz (100 kHz steps)
(U.S.A./Canada model)
87.5 MHz – 108.0 MHz (50 kHz steps)
(Europe/U.K. model)
AM Suppression Ratio..... 45 dB
Total Harmonic Distortion (1 kHz)..... Mono : 0.4 %
Stereo : 0.5 %
Frequency Response..... 30 Hz – 15 kHz, +1/ –1.5 dB
Stereo Separation (1 kHz) ..... 40 dB
Signal-to-Noise Ratio ..... Mono : 75 dB
Stereo : 70 dB

AM Tuner Section

Tuning Range ..... 530 kHz – 1,710 kHz (10 kHz steps)
(U.S.A./Canada model)
522 kHz – 1,629 kHz (9 kHz steps)
(Europe/U.K. model)
Usable Sensitivity ..... 55 dB/m
Total Harmonic Distortion ..... 1.5 % at 100 dB/m
Signal-to-Noise Ratio ..... 42 dB at 100 dB/m

General

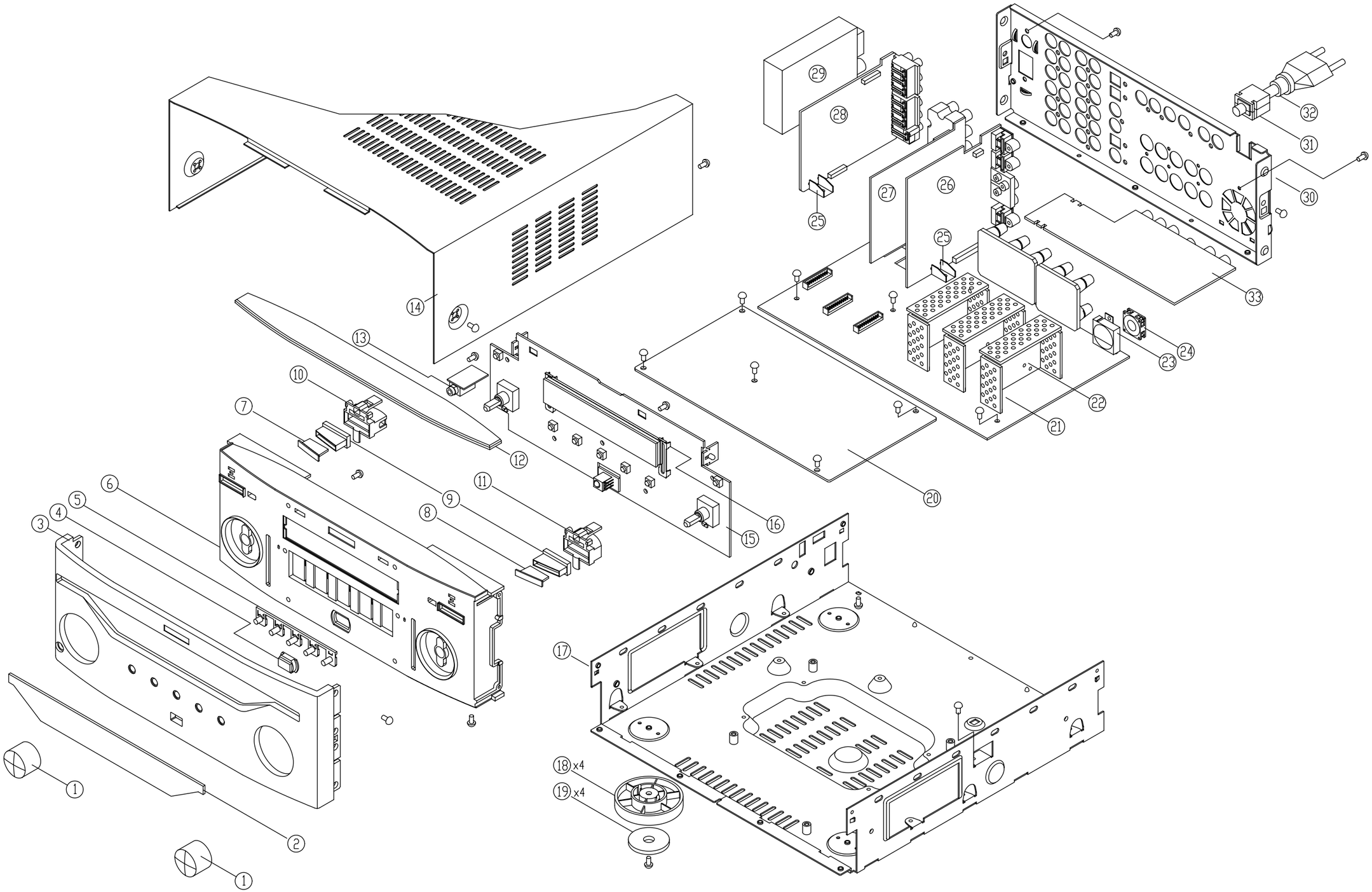
Power requirements..... 120 V AC, 60 Hz (U.S.A./Canada model)
230 V AC, 50 Hz (Europe/U.K. model)
Power Consumption ..... 100 W (STANDBY : 2.5 W)
Dimensions (W x H x D)..... 275 x 111 x 331 mm
Weight (net) ..... 3.9 kg

Standard Accessories ..... AM Loop Antenna x 1
FM Lead-type Antenna x 1
LCD Remote Control System (RC-L800) x 1
Battery (AAA, R03, UM-4) x 4
Owner's Manual x 1

• Design and specifications are subject to change without notice.

2 ADJUSTMENTS AND CHECKS

3 EXPLODED VIEWS AND PARTS LIST

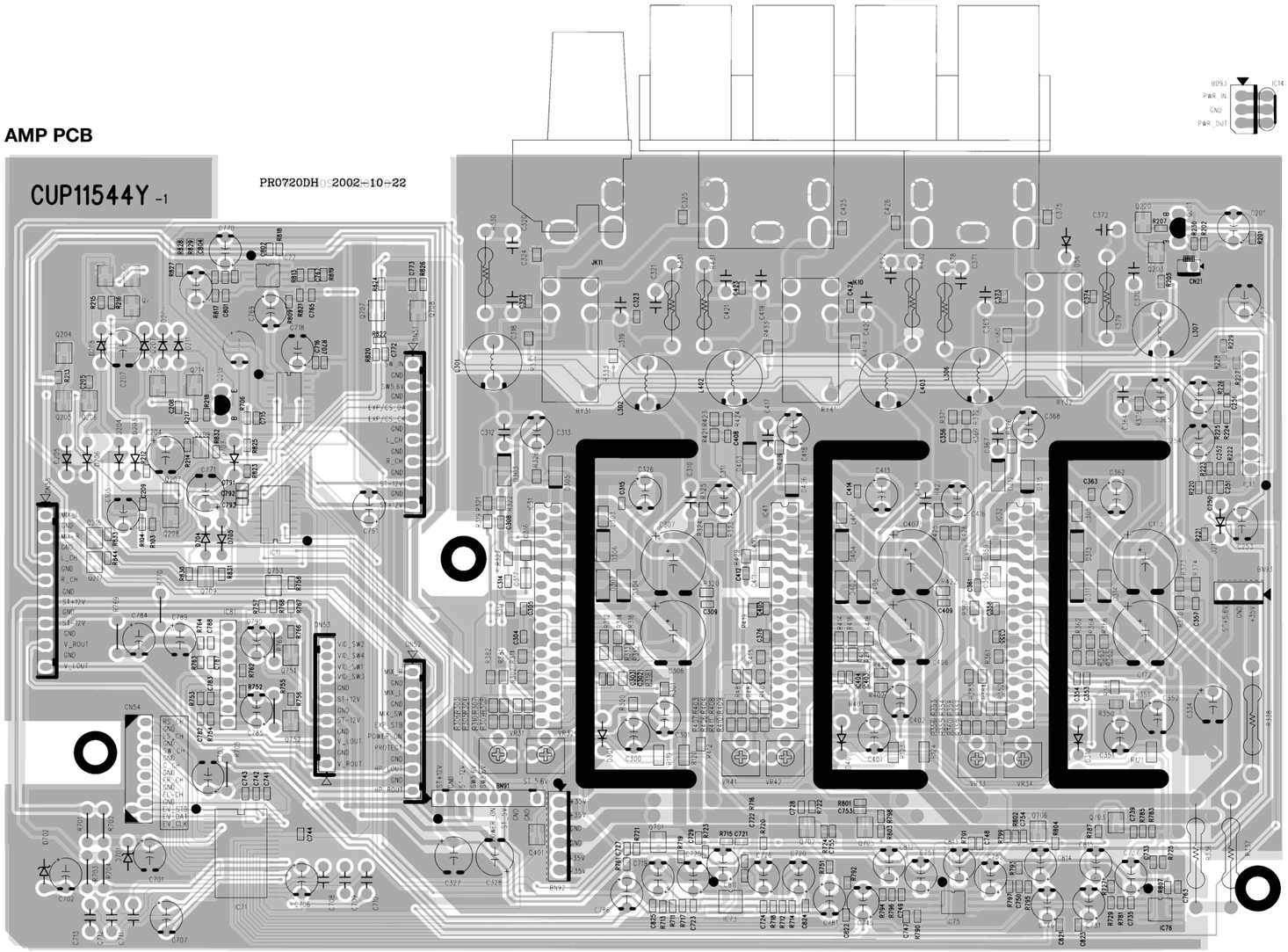


EXPLODED VIEW LIST

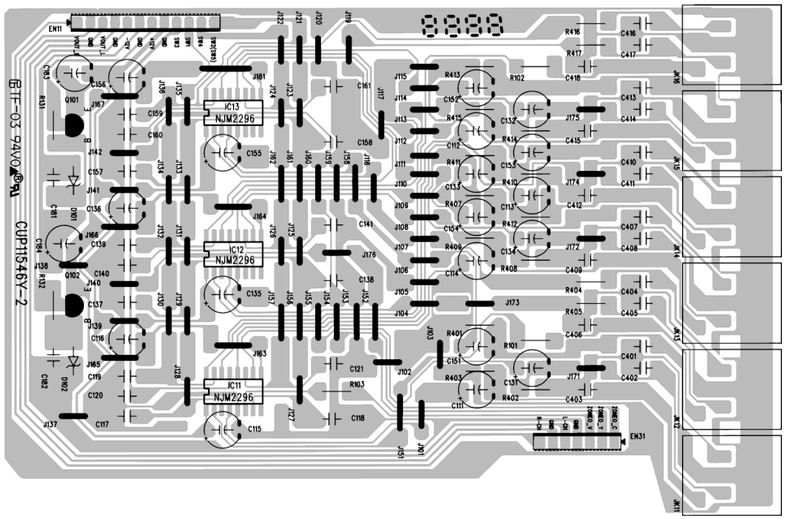
REF.NO.		PARTS NO.	DESCRIPTION	REMARKS
1		9A09605700	VOLUME KNOB ASSY	KGK1A080ZA
2		9A09605800	WINDOW,FIP [US,C]	KGU1A285Y
		9A09644900	WINDOW,FIP [E,UK]	KGU1A285X
3		9A09606410	PANEL,FRONT [US,C]	KKM1A122YC35
		9A09606420	PANEL,FRONT [E,UK]	KKM1A122ZC35
4		9A09594600	WINDOW,SENSOR	CGU1A287A14K101
5		9A09594000	KNOB,TACT	CBT1A834C22
6		9A09594700	PANEL,SUB	CGW1A339R6K101
7		9A09594200	KNOB,RDS(DIFFUSION)	CBT1A835RAZK101
8		9A09594100	KNOB,DIMMER(DIFFUSION)	CBT1A835RAXK101
9		9A09594500	KNOB,POWER(LIGHTING)	CBY1A026
10		9A09594400	KNOB,POWER	CBY1A025RA
11		9A09594300	KNOB,RDS	CBY1A024RA
12		9A09605910	ORNAMENT,TOP [US,C]	KGU1A286Y
		9A09605920	ORNAMENT,TOP [E,UK]	KGU1A286Z
13		9A09575710	FRONT PCB ASSY [US,C]	COP11547C
		9A09575720	FRONT PCB ASSY [E,UK]	COP11547B
14		9A09595300	TOP CABINET	CKC2B130S35
15		9A09575710	FRONT PCB ASSY [US,C]	COP11547C
		9A09575720	FRONT PCB ASSY [E,UK]	COP11547B
16		9A08888700	BRACKET,FLT	CMD1A209
17		9A09598900	CHASSIS,BOTTOM	CUA2A215
18		9A09606300	FOOT	KKL1A047M7G6
19		9A06229300	CUSHION,FOOT	KHG1A039Z
20		9A09596010	SMPS PCB ASSY [US,C]	COP11548C
		9A09596020	SMPS PCB ASSY [E,UK]	COP11548B
21		9A09575910	AMP PCB ASSY	COP11544B
22		9A09595800	HEAT SINK	CMY1A196
23		9A09595600	BRACKET,FAN	CMD1A471
24		9A09601800	FAN,MOTOR	HDMF410T12L1C01
25		9A09559700	BRACKET,PCB	CMD1A387
26		9A09576210	DIGITAL PCB ASSY	COP11545B
27		9A09576510	I/O PCB ASSY	COP11546B
28		9A09576510	I/O PCB ASSY	COP11546B
29		9A09560110	TUNER MODULE [US,C]	CNVMB001MA08SL
		9A09645000	TUNER MODULE [E,UK]	CNVMB014MA1-8L
30		9A09595410	REAR PANEL [US,C]	CKF1A239Y
		9A09595420	REAR PANEL [E,UK]	CKF1A239Z
31	⚠	9A06754900	BUSHING,AC CORD	KHR1A028
32	⚠	9A07872600	POWER CORD [US,C]	CJA523FBY
	⚠	9A07916700	POWER CORD [E]	CJA2B043Z
	⚠	9A07916800	POWER CORD [UK]	CJA2E045Z
33		9A09576510	I/O PCB ASSY	COP11546B
		9A09600100	CARD CABLE	CWC1B2A11A250B
		9A09600200	CARD CABLE	CWC1B2A19A320B
		9A09564200	CARD CABLE	CWC1C4A15B130B
		9A08038100	RING,FERRITE	KLZ9W001Z

4 PC BOARDS AND PARTS LIST

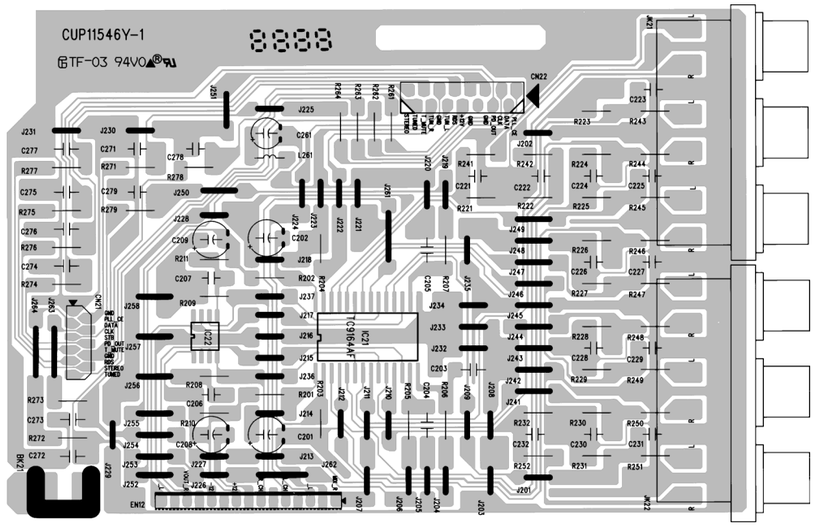
AMP PCB



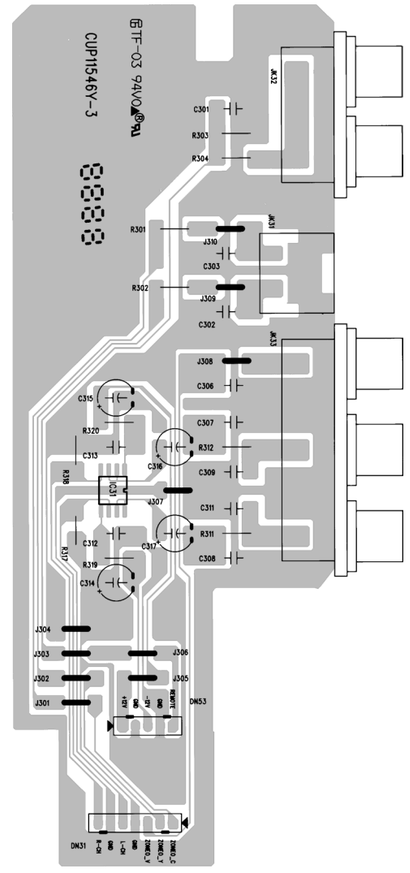
VIDEO PCB (I/O GATHER)



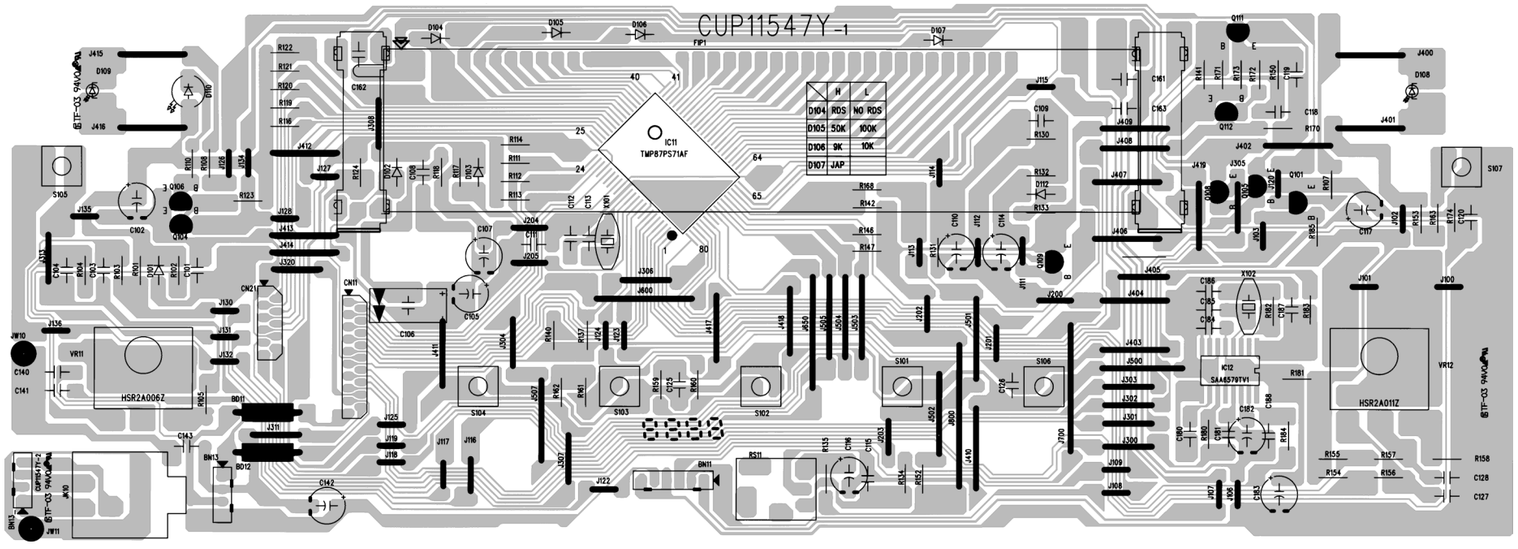
FUNCTION PCB (I/O GATHER)



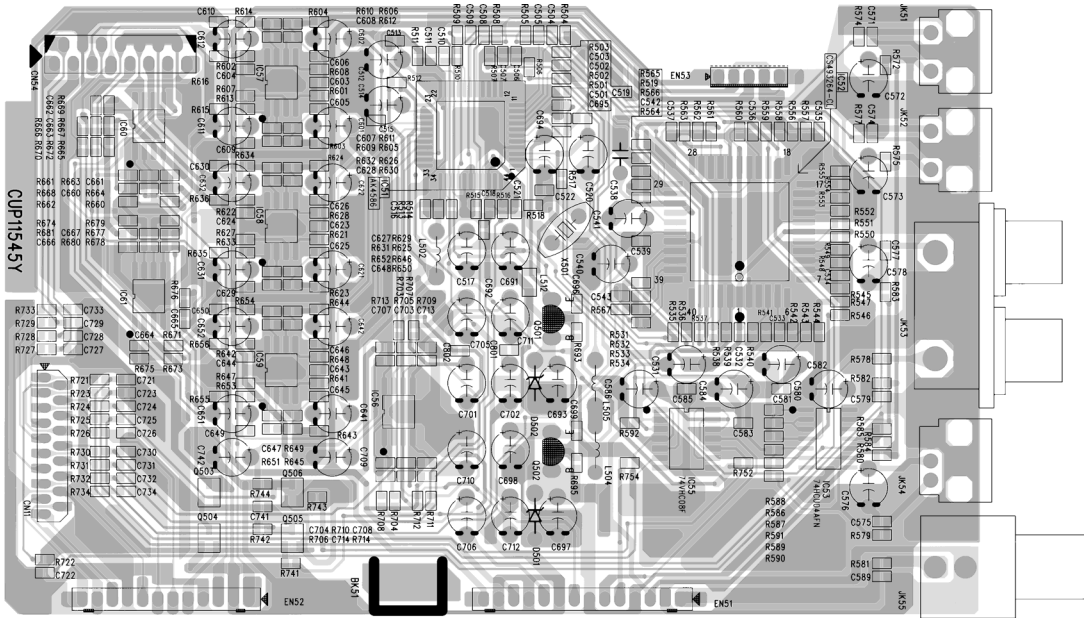
CONTROL PCB (I/O GATHER)



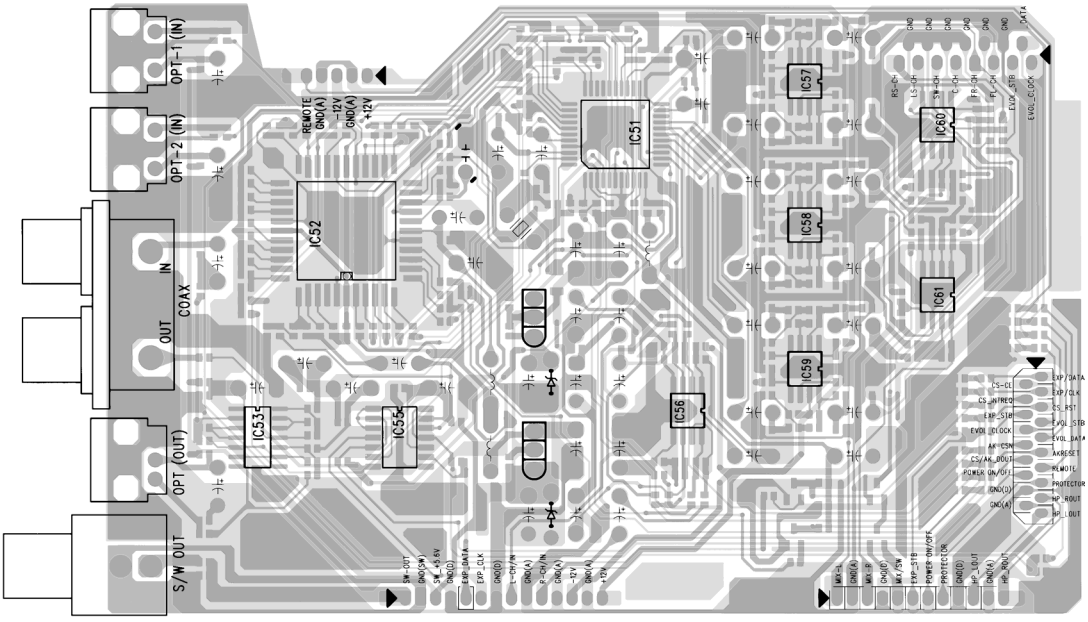
FRONT PCB



DIGITAL PCB (SIDE A)



DIGITAL PCB (SIDE B)



AMP PCB ASSY

REF.NO.		PARTS NO.	DESCRIPTION
		9A09575910	AMP PCB ASSY
		9A09599000	AMP PCB
		9A09595600	BRACKET,FAN
		9A09601800	FAN,MOTOR
BD93		9A05329100	WAFER,MOLEX 5267-03A
CN21		9A08219500	WAFER
CN54		9A08220000	WAFER,CARD CABLE
D056		9A08878200	DIODE,1SS133T-77
D204-D209		9A08878200	DIODE,1SS133T-77
D211,D212		9A08878200	DIODE,1SS133T-77
D301		9A08878200	DIODE,1SS133T-77
D302-D306		9A09603600	DIODE,SCHOTTKEY BARRIER
D310		9A08878200	DIODE,1SS133T-77
D311-D315		9A09603600	DIODE,SCHOTTKEY BARRIER
D401		9A08878200	DIODE,1SS133T-77
D402-D406		9A09603600	DIODE,SCHOTTKEY BARRIER
D701,D702		9A07903000	DIODE,ZENER MTZJ7.5A
D703-D705		9A08878200	DIODE,1SS133T-77
DN51		9A08036800	WAFER,MOLEX 35336-1410
DN52,DN53		9A09279300	WAFER
DN55		9A09606100	WAFER
IC11		9A09604100	IC,NJU3713G
IC13		9A09604300	IC,TA7317P
IC14	⚠	9A08218600	IC,MC7805C
IC31,IC32		9A09595800	HEAT SINK
IC31,IC32		9A09604200	IC,TA2022-100
IC41		9A09595800	HEAT SINK
IC41		9A09604200	IC,TA2022-100
IC71		9A09604000	IC,M62446AFP
IC72		9A09604500	IC,TC9215AF
IC73		9A08163400	IC,NJM2068MD
IC75-IC77		9A08163400	IC,NJM2068MD
IC81		9A08163500	IC,NJM4556AL
JK10		9A09595200	TERMINAL,SP(RRRR/BBBB)
JK11		9A09595100	TERMINAL,SP(R/B)
L301,L302		9A09595500	COIL,SPEAKER
L303,L305		9A09602100	COIL,CHIP 100UH K
L306,L307		9A09595500	COIL,SPEAKER
L401		9A09602100	COIL,CHIP 100UH K
L402,L403		9A09595500	COIL,SPEAKER
Q201		9A07888100	TR,KTA1266YT
Q203		9A09604800	TR,CHIP KRA102S
Q204		9A09605000	TR,CHIP KRC102S
Q205,Q206		9A09604800	TR,CHIP KRA102S
Q207,Q208		9A09605000	TR,CHIP KRC102S
Q209,Q210		9A09604800	TR,CHIP KRA102S
Q211		9A09605000	TR,CHIP KRC102S
Q212		9A09605100	TR,CHIP KRC114S
Q213		9A09604800	TR,CHIP KRA102S
Q214		9A09605000	TR,CHIP KRC102S

AMP PCB ASSY

REF.NO.		PARTS NO.	DESCRIPTION
Q215		9A07887900	TR,KSB811YT
Q216,Q217		9A09605200	TR,CHIP KTD1304T
Q220		9A09605000	TR,CHIP KRC102S
Q401		9A09605100	TR,CHIP KRC114S
Q701-Q703		9A09605200	TR,CHIP KTD1304T
Q705-Q708		9A09605200	TR,CHIP KTD1304T
Q709		9A09604800	TR,CHIP KRA102S
Q751,Q752		9A09605200	TR,CHIP KTD1304T
Q753		9A09604800	TR,CHIP KRA102S
R119-R121		9A09602000	BEAD,FERRITE(CHIP)
R123,R124		9A09602000	BEAD,FERRITE(CHIP)
R330,R331	⚠	9A09606700	R,METAL OXIDE FILM 2W 6.8
R336-R338	⚠	9A09606600	R,METAL OXIDE FILM 2W 27
R378,R379	⚠	9A09606700	R,METAL OXIDE FILM 2W 6.8
R431,R432	⚠	9A09606700	R,METAL OXIDE FILM 2W 6.8
RY31,RY32		9A09058500	RELAY
RY41		9A09058500	RELAY
VR31-VR34		9A09604600	VR,SEMI FIXED 47K OHM
VR41,VR42		9A09604600	VR,SEMI FIXED 47K OHM

I/O PCB ASSY (GATHER)

REF.NO.		PARTS NO.	DESCRIPTION
		9A09576510	I/O PCB ASSY
		9A09599200	I/O PCB
BK21		9A09559700	BRACKET,PCB
CN21		9A09606000	WAFER,CARD CABLE
CN22		9A08220000	WAFER,CARD CABLE
D101,D102		9A08951100	DIODE,ZENER MTZJ6.8BT
DN31		9A07889900	WAFER,MOLEX 35336-0710
DN53		9A09289800	WAFER
EN11		9A09279400	CONNECTOR
EN12		9A09606200	WAFER
EN31		9A07890000	CONNECTOR,MOLEX 35237-0710
IC11-IC13		9A08945500	IC,NJM2296M
IC21		9A09340400	IC,TC9164AF
IC22		9A08163400	IC,NJM2068MD
IC31		9A08163400	IC,NJM2068MD
JK11-JK16		9A09278800	JACK,S-VIDEO+VHS
JK21,JK22		9A09289400	JACK,BOARD
JK31		9A09601900	JACK,S-VIDEO 1P
JK32		9A09594900	JACK,REMOTE 2P
JK33		9A09595000	JACK,3P
L261		9A07886600	COIL,10UH
Q101	⚠	9A07888000	TR,KSC2316YT
Q102	⚠	9A09041500	TR,KSA916YT

FRONT PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	9A09575710	FRONT PCB ASSY [US,C]
	9A09575720	FRONT PCB ASSY [E,UK]
	9A09599300	FRONT PCB
	9A08888700	BRACKET,FLT
BD11,BD12	9A07050600	BEAD,CORE
C106	9A09275000	C,0.1F GOLD
CN11	9A09606000	WAFER,CARD CABLE
CN21	9A08789500	WAFER,CARD CABLE
D101-D103	9A08878200	DIODE,1SS133T-77
D104	9A08878200	DIODE,1SS133T-77 [E,UK]
D105	9A08878200	DIODE,1SS133T-77
D106	9A08878200	DIODE,1SS133T-77 [E,UK]
D108,D109	9A09563300	LED,BLUE
D110	9A09344400	LED,YELLOW
D112	9A08878200	DIODE,1SS133T-77
FIP1	9A08034600	F.I.P,SVA-10MS11
IC11	9A09603800	IC,HVIANAM1357AT(PRGMD)
IC12	9A08033400	IC,SAA6579T/V1 [E,UK]
JK10	9A09567200	JACK,HEADPHONE [E,UK]
L101	9A07886600	COIL,10UH
Q101	9A09599500	TR,KRC102MT
Q104-Q106	9A09604900	TR,KRC102MT
Q108	9A09604700	TR,KRA102MT
Q109	9A07887900	TR,KSB811YT
Q110,Q111	9A09604900	TR,KRC102MT
Q112	9A09604700	TR,KRA102MT
RS11	9A08563600	SENSOR,REMOCON
S101-S107	9A07878500	SW,TACT SKHV10910G
VR11	9A08890300	VR,ENCODER [E,UK]
VR12	9A08162900	VR,ENCODER [E,UK]
X101	9A08879000	CRYSTAL
X102	9A09644800	CRYSTAL [E,UK]

DIGITAL PCB ASSY

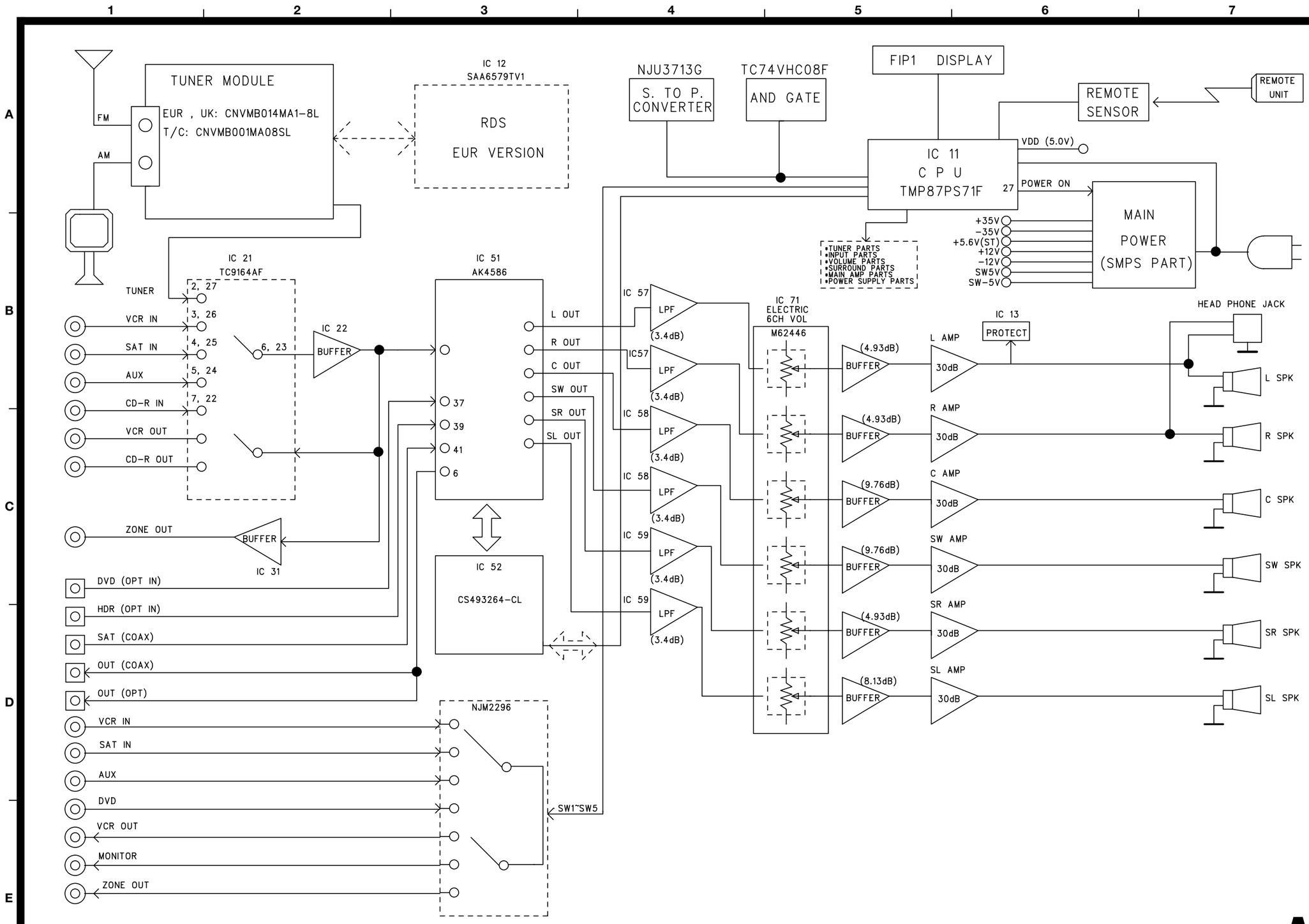
REF.NO.		PARTS NO.	DESCRIPTION
		9A09576210	DIGITAL PCB ASSY
		9A09599100	DIGITAL PCB
BK51		9A09559700	BRACKET,PCB
CN11		9A08789500	WAFER,CARD CABLE
CN54		9A08220000	WAFER,CARD CABLE
D501		9A09603400	DIODE,ZENER MTZJ3.3BT
D502		9A09603500	DIODE,ZENER MTZJ4.3CT
EN51		9A08036900	WAFER,MOLEX 35237-1410
EN52		9A09279400	CONNECTOR
EN53		9A09289900	CONNECTOR
IC51		9A09603700	IC,AK4586VQ
IC52		9A09603900	IC,CS493264-CL
IC53		9A08948000	IC,TC74HCU04AFN
IC55		9A09604400	IC,TC74VHC08F
IC56-IC61		9A08163400	IC,NJM2068MD
JK51,JK52		9A08948300	MODULE,OPTICAL(RX)
JK53		9A09278500	JACK,BOARD
JK54		9A08126500	MODULE,OPTICAL
JK55		9A09558800	JACK,INPUT 1P(GOLD)
L502		9A07886600	COIL,10UH
L504,L505		9A07886600	COIL,10UH
L512		9A09602000	BEAD,FERRITE(CHIP)
Q501,Q502	⚠	9A07888000	TR,KSC2316YT
Q503		9A09605000	TR,CHIP KRC102S
Q504		9A09604800	TR,CHIP KRA102S
Q505,Q506		9A09605100	TR,CHIP KRC114S
X501		9A08949000	CRYSTAL

5 INCLUDED ACCESSORIES

INCLUDED ACCESSORIES

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
	9A09478100	OWNER'S MANUAL,EFS [US,C]	CQX1A809Z
	9A09478202	OWNER'S MANUAL,EGF [E,UK]	CQX1A814Z
	9A09478301	OWNER'S MANUAL,ISN [E]	CQX1A818Z
	9A09596900	MANUAL,CD ROM	CQX1A817Z
	9A09596800	MANUAL,REMOCON	CQX1A816Z
	9A09645100	MANUAL,REMOCON [E,UK]	CQX1A815Z
	9A09600410	REMOTE CONTROL UNIT [US,C]	HARTAGL800T/C
	9A09600420	REMOTE CONTROL UNIT [E,UK]	HARTAGL800EUR
	9A09600300	BATTERY	HABAAAM1.5VAK
	9A09562000	FM 1 POLE ANT [US,C]	CSA1A019Z
	9A09572700	FM 1 POLE ANT [E,UK]	CSA1A018Z
	9A09562100	AM LOOP ANT	CSA1A020Z

TEAC BLOCK DIAGRAM AG-L800



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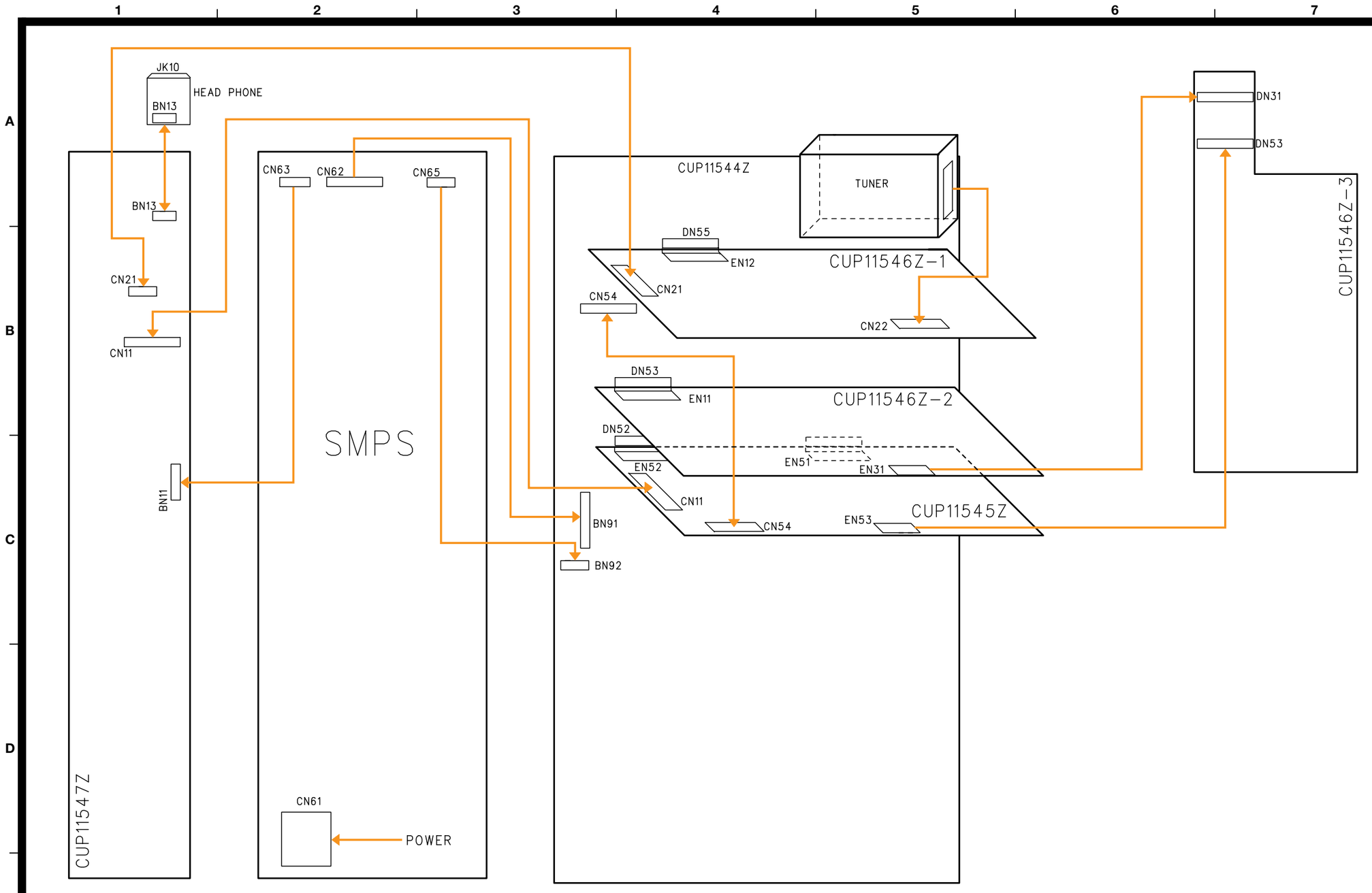
TEAC **WIRING DIAGRAM** **AG-L800**



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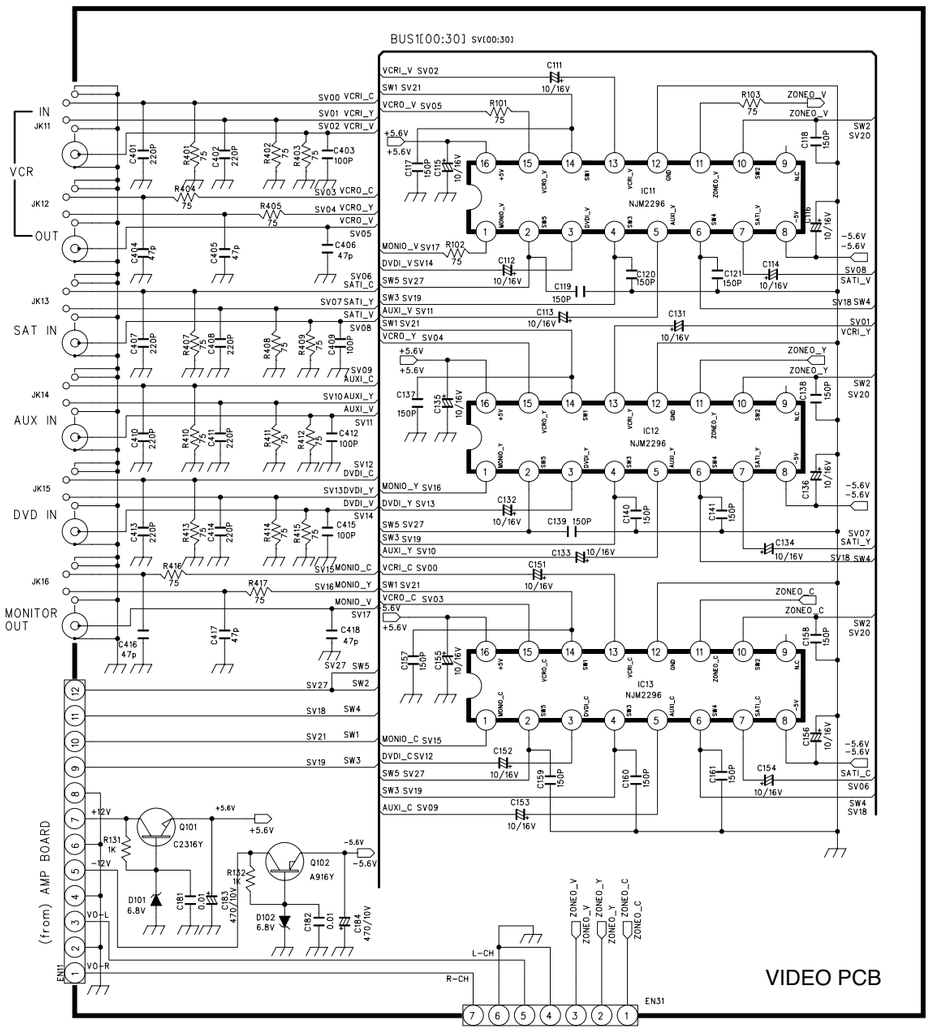

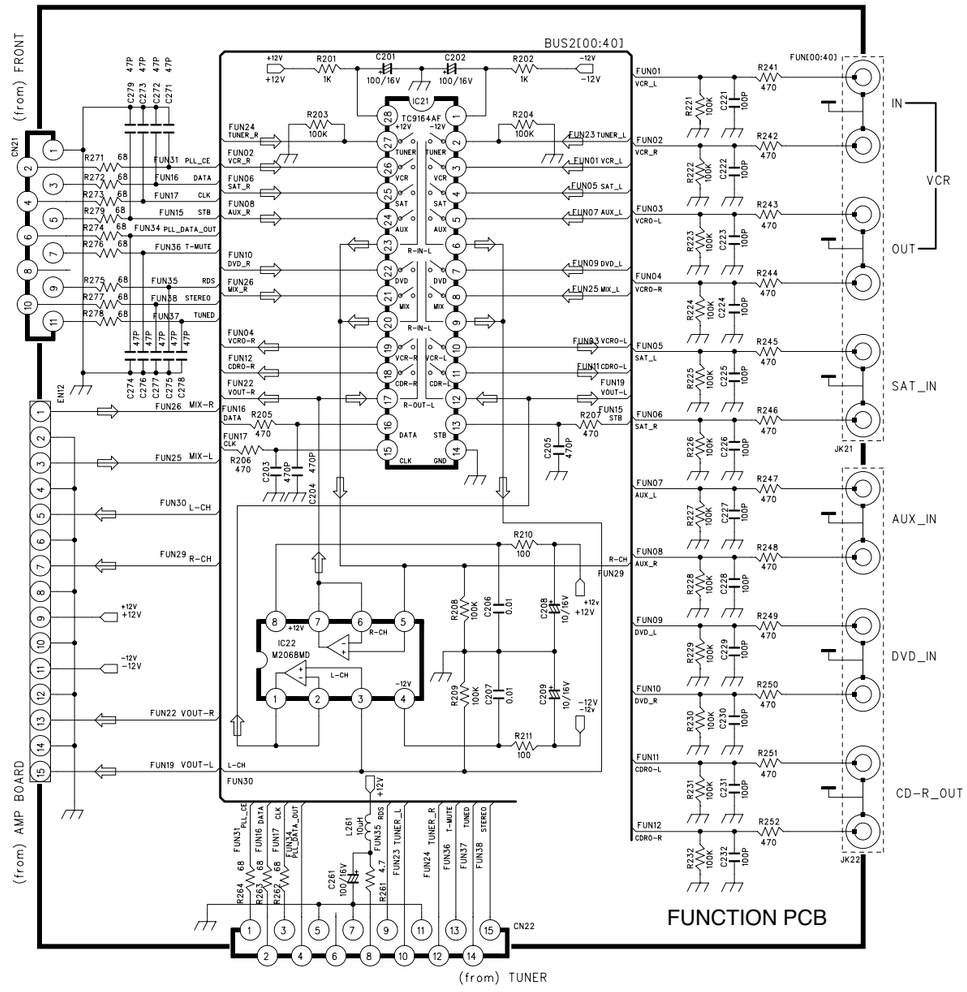

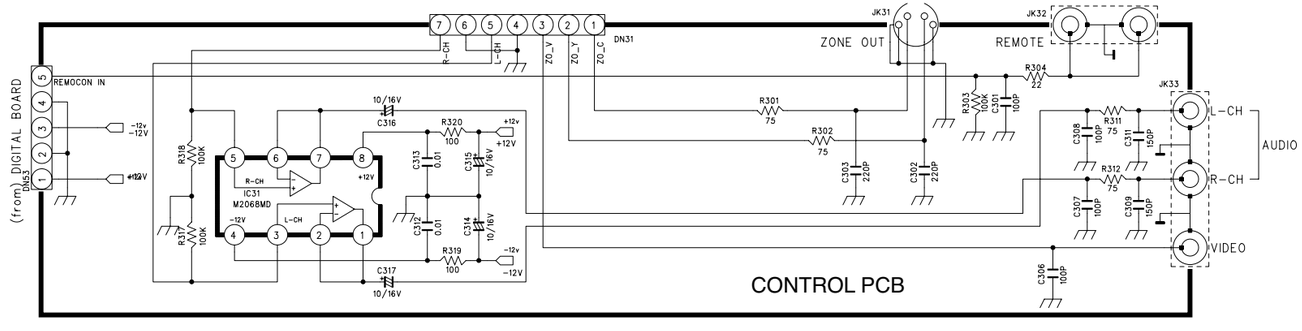

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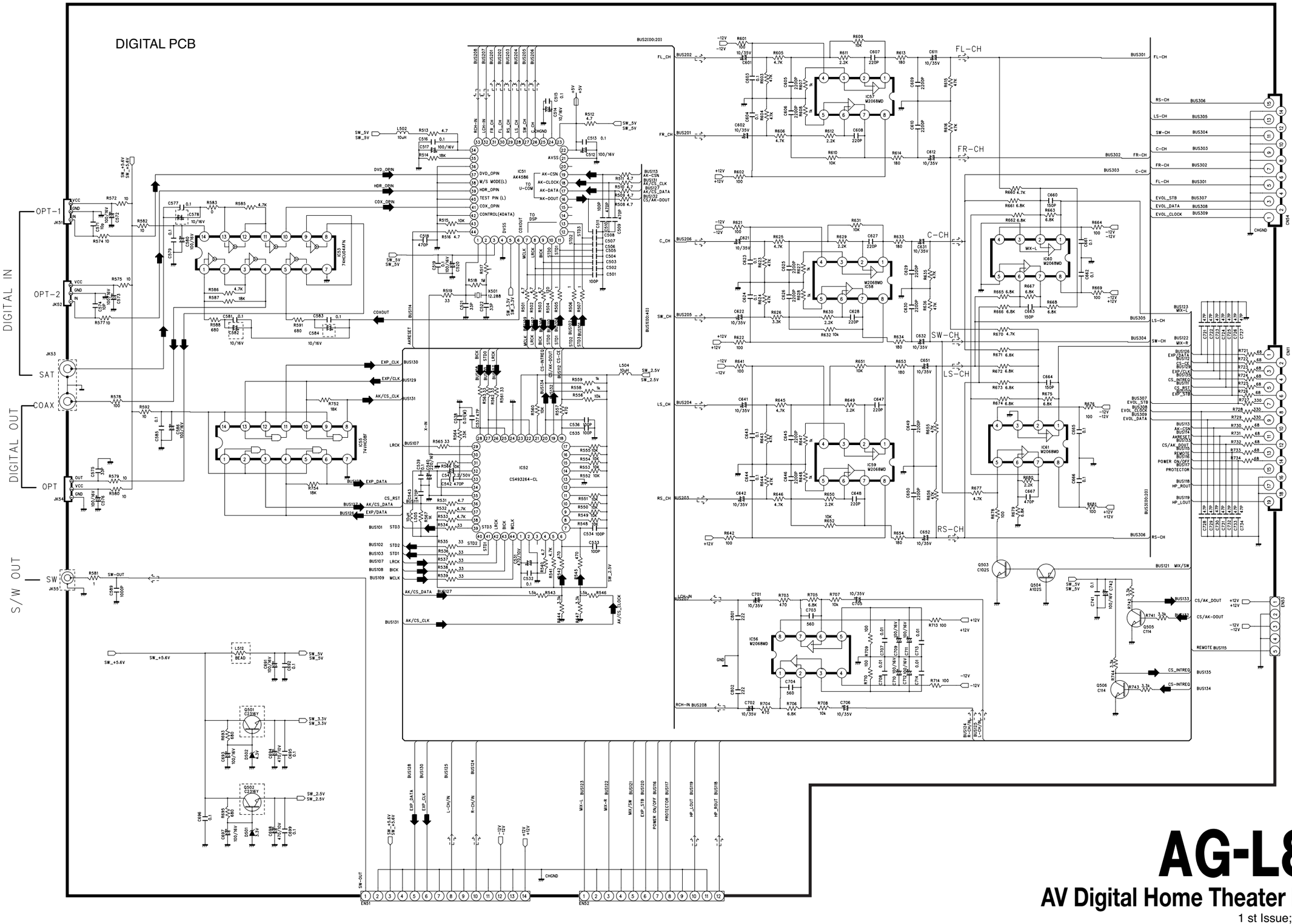
1 st Issue; November 2002

DIGITAL PCB



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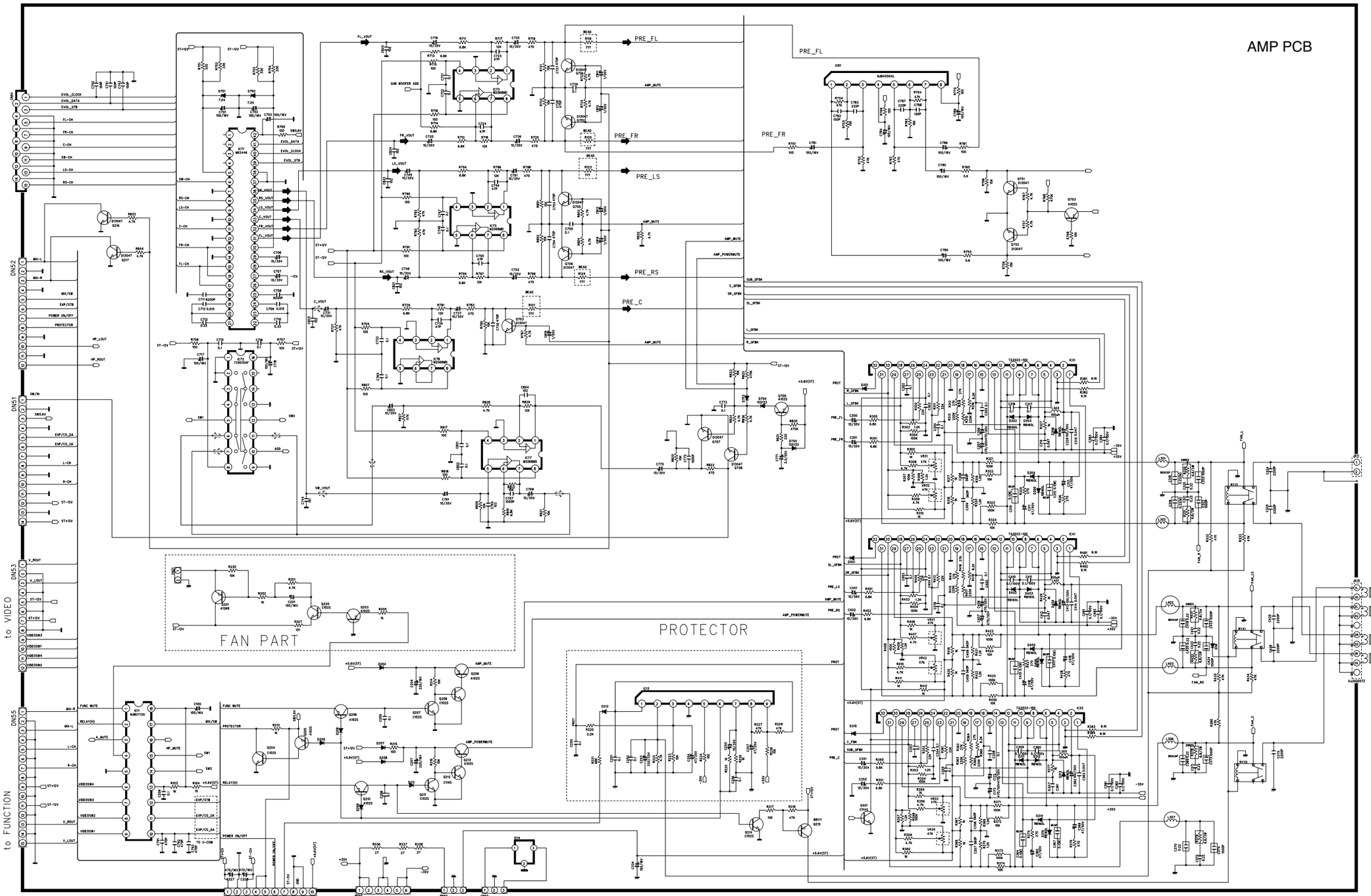

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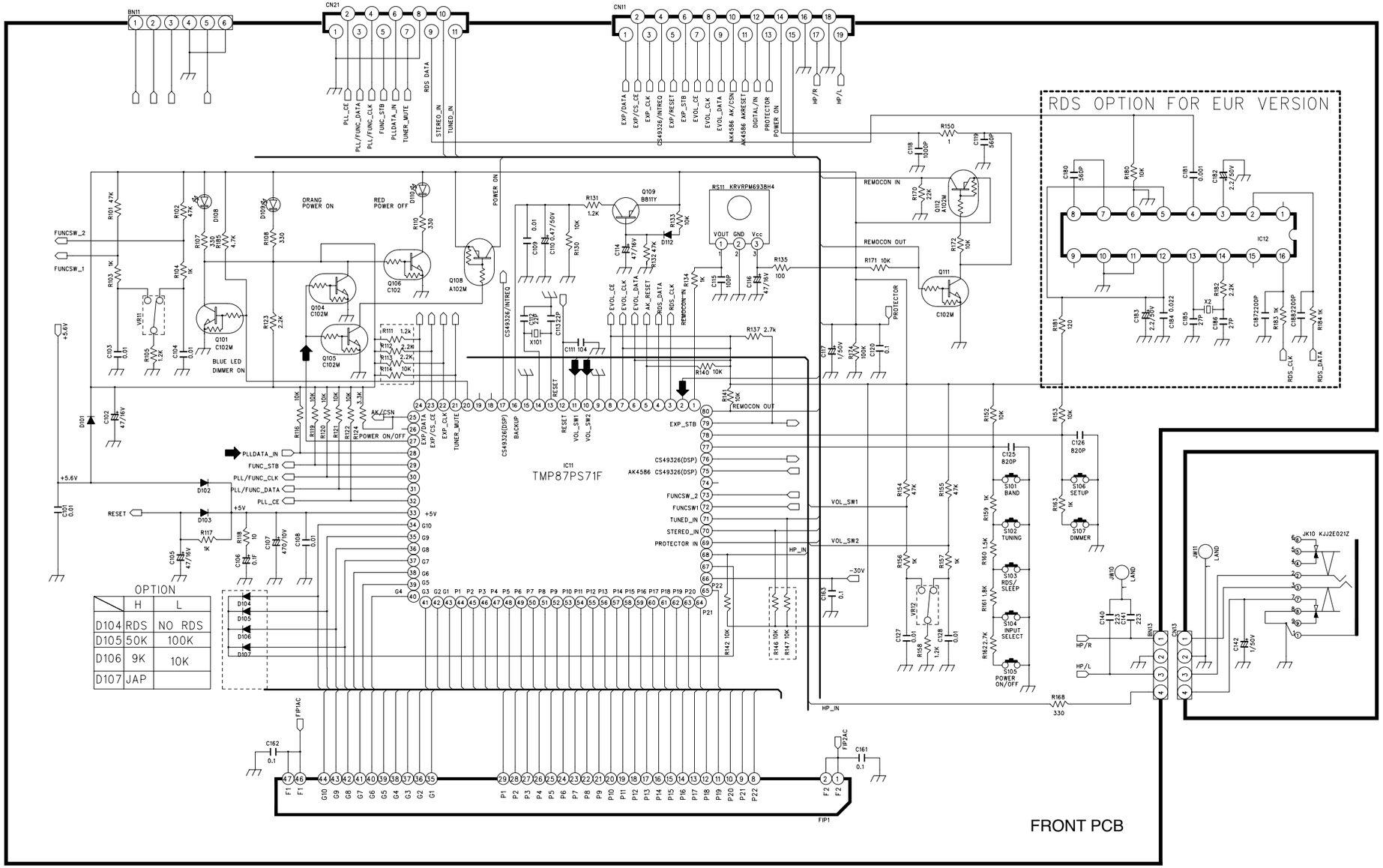

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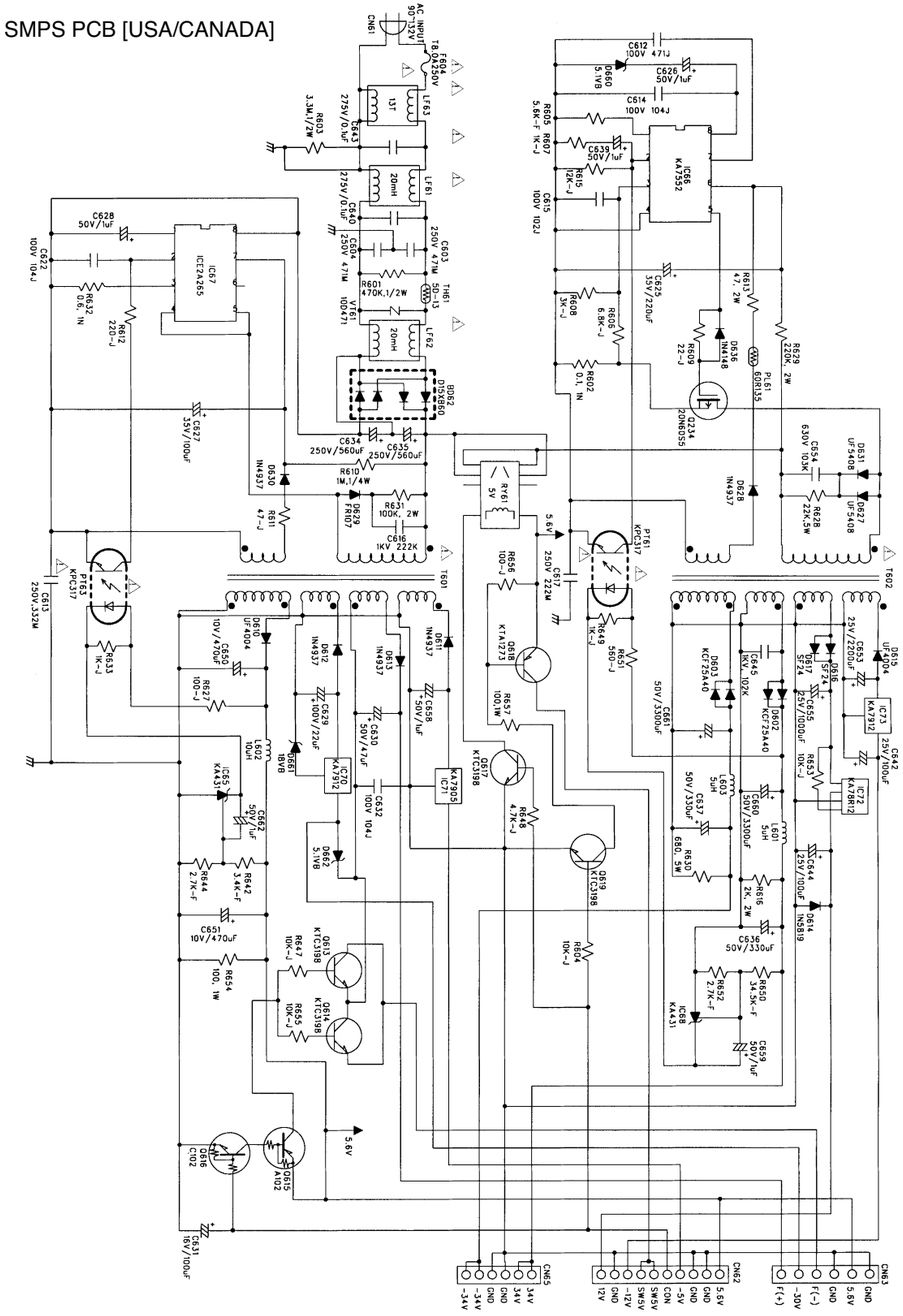
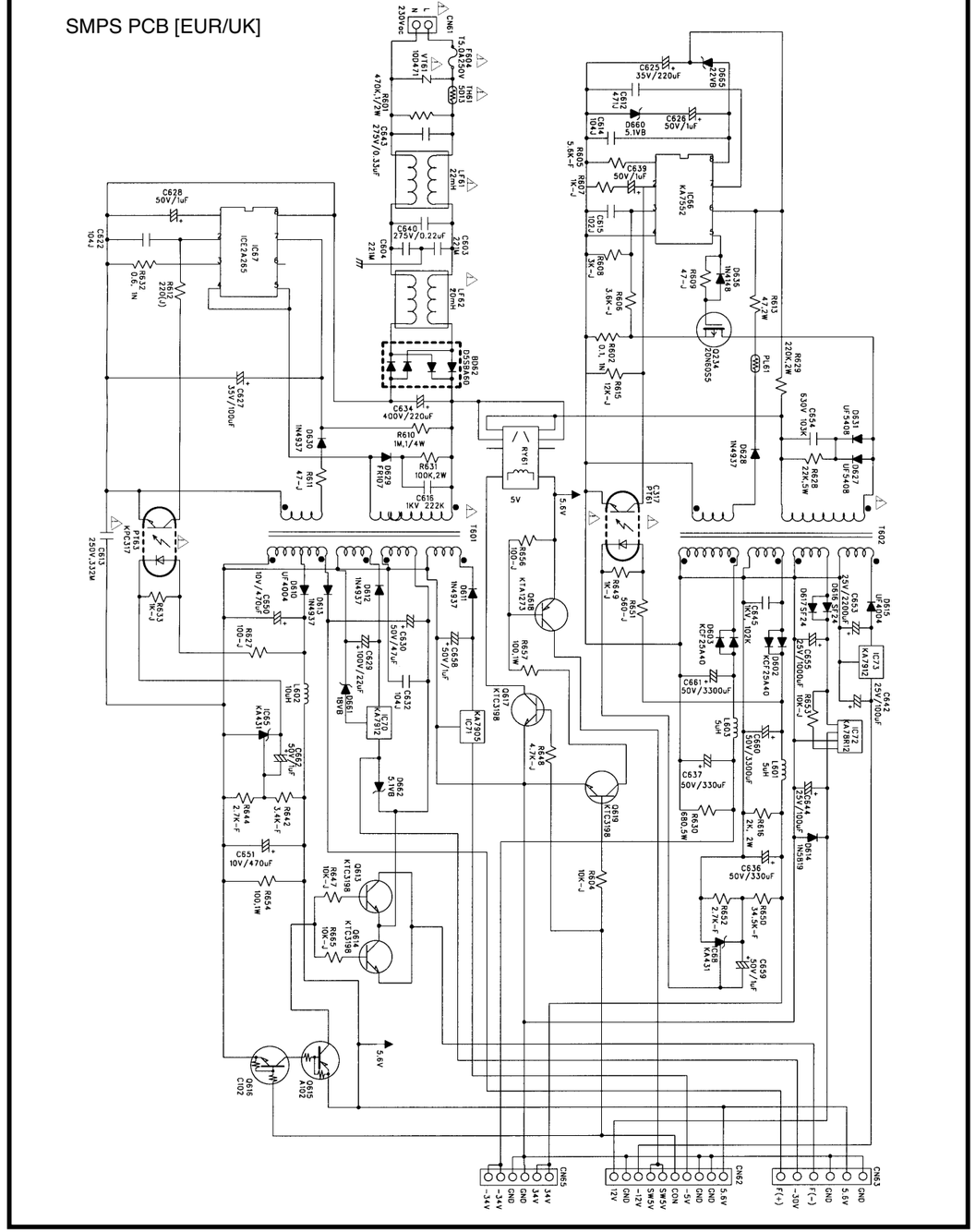
SMPS PCB [USA/CANADA]



SMPS PCB [EUR/UK]



INSTRUCTIONS FOR SERVICE PERSONNEL
BEFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.

NOTES:

⚠Parts marked with this sign are safety critical components. They must always be replaced with identical components-refer to the appropriate parts list and ensure exact replacement.

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